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March 19, 2012

VIA ECFS

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Ex Parte Presentation in: WT Docket No. 07-293, WT Docket No. 10-112

Dear Ms. Dortch:

This letter provides notice that on March 14, 2012, Monica Desai of Patton Boggs LLP, Jennifer McCarthy of NextWave Wireless Inc., Brian Weimer of Sheppard Mullin Richter & Hampton LLP, and Jeff Nichols of San Diego Gas & Electric Company ("SDG&E") met with the following Wireless Telecommunications Bureau staff: John Leibovitz, Tom Peters, Moslem Sawez, Paul Moon and Linda Chang, regarding the above captioned proceedings. SDG&E described its deployment of a fixed backhaul network using its 2.3 GHz WCS spectrum in San Diego, CA, which is the foundation of its Smart Grid program, known as SGCS, or SDGE Grid Communication System. During the meeting, SDG&E identified certain ambiguities in the FCC's current rules for the WCS band and sought clarification from the staff on the proper interpretation of those rules as applied to the SDGE Grid Communication System. For example, SDG&E noted that the Commission's current WCS performance requirements appear not to contemplate point-to-multipoint applications that do not provide service directly to consumers like the SDGE Grid Communication System.

The SDGE Grid Communication System is designed to provide secure broadband connectivity to a wide-range of fixed stations throughout SDG&E's's electrical service territory that support a variety of location-intelligent operating status and condition monitoring applications, such as AMI backhaul, smart transformers, PV charging stations, renewable resource communications, SCADA and photovoltaic measurements. Once fully deployed, it is anticipated that the network will ultimately support thousands of fixed stations throughout SDG&E's' service area. SDG&E's affiliate, Southern California Gas Company, is also exploring expansion of this network and operations to its gas service territory in the greater Los Angeles area. The parties also discussed SDG&E's efforts to plan for a future upgrade of its WiMAX network to LTE when equipment for the U.S. 2.3 GHz market is available. Commission staff requested that SDG&E supply additional information about the SDGE Grid Communication System. SDG&E respectfully submits the attached PowerPoint entitled "Smart Grid Communication System (SGCS): Background and Examples for FCC" in response thereto.

Finally, the parties discussed the need for the Commission to move forward with the implementation of the plan set forth in the Wireless Rule Harmonization NPRM to address the renewal of the WCS licenses.[1] Without resolution of the issues raised in that proceeding and elimination of the conditions placed on the WCS license renewals, additional investment in and deployments of Smart Grid systems, such as the SDGE Grid Communication System, are being hindered due to continued regulatory uncertainty.

Respectfully submitted,

/s/ Brian D. Weimer

Brian D. Weimer

cc: John Leibovitz
Tom Peters
Moslem Sawez
Paul Moon
Linda Chang

[1] *See* Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services, Notice of Proposed Rulemaking and Order, 25 FCC Rcd 6996 (2010).

Smart Grid Communication System (SGCS)
Background and Examples for FCC

Jeff Nichols

Sr. Director, IT Infrastructure

San Diego Gas & Electric

SDG&E GRID COMMUNICATION SYSTEM

SDGE connected

A Sempra Energy utility

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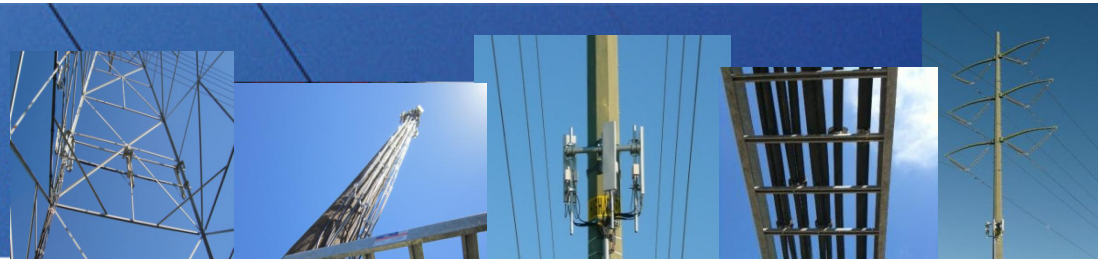
The Spectrum Issue



- As SDGE tried to spec & design a high-performance smart grid communication service, spectrum quickly became the key issue. We looked exhaustively at many options.
  - 700 MHz, 1.4 GHz, 2.3 GHz, 3.65 GHz, 400 MHz, 800/900 MHz, 1.8 GHz, TV white spaces…

- 2.3 GHz WCS spectrum was the only option that survived our major filters :
  - Availability in our service territory
  - Affordability
  - License ownership
  - Equipment availability
  - Operational fit

SDG&E GRID COMMUNICATION SYSTEM

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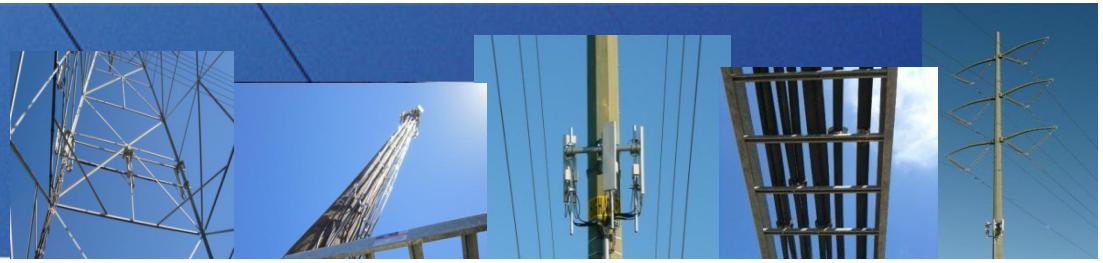
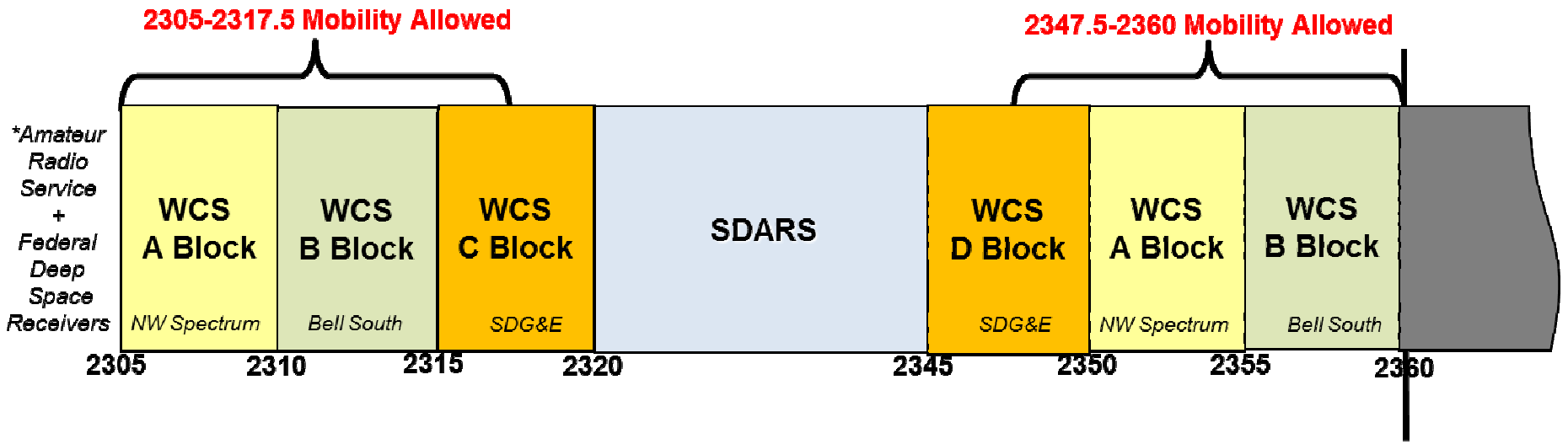
WCS Spectrum





- 2305-2320 and 2345-2360: Based and Fixed Stations Allowed
- 2305-2317.5 and 2347.5-2360: Mobile and Portable Stations Allowed

*Amateur Radio Service has 5 MHz and is directly adjacent to A Block. The Federal Deep Space Receivers live between 2290-2300 MHz
**Aeronautical Mobile Telemetry Service operates at the upper adjacent edge between 2360-2395 MHz

SDG&E GRID COMMUNICATION SYSTEM

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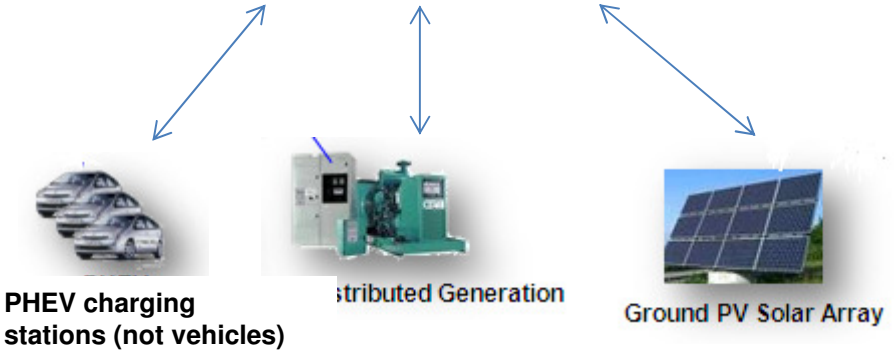
Service Design Goals
Fixed stations on 2.3 GHz

Service Spec	Design Goal
Throughput @ Cell Edge (3 simul users)	1 Mbps on downlink
	100 kbps on uplink (per user)
Throughput close to cell	2.6 Mbps on downlink
	1.3 Mbps on uplink
Latency	Less than 100 ms
Fixed stations per cell	256 per sector 768 per 3 sector cell
Backhaul Availability	.999995 (2.6 minutes downtime per year)
RAN Availability	.99997 (15 minutes downtime per year)



Examples: Smart Grid devices

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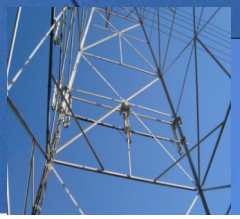
Equipment installation examples

Fixed station on transmission tower

Equipment installation examples

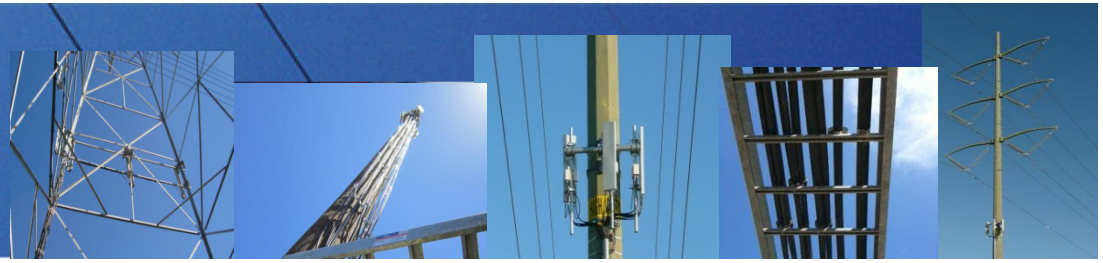
Fixed station on distribution pole

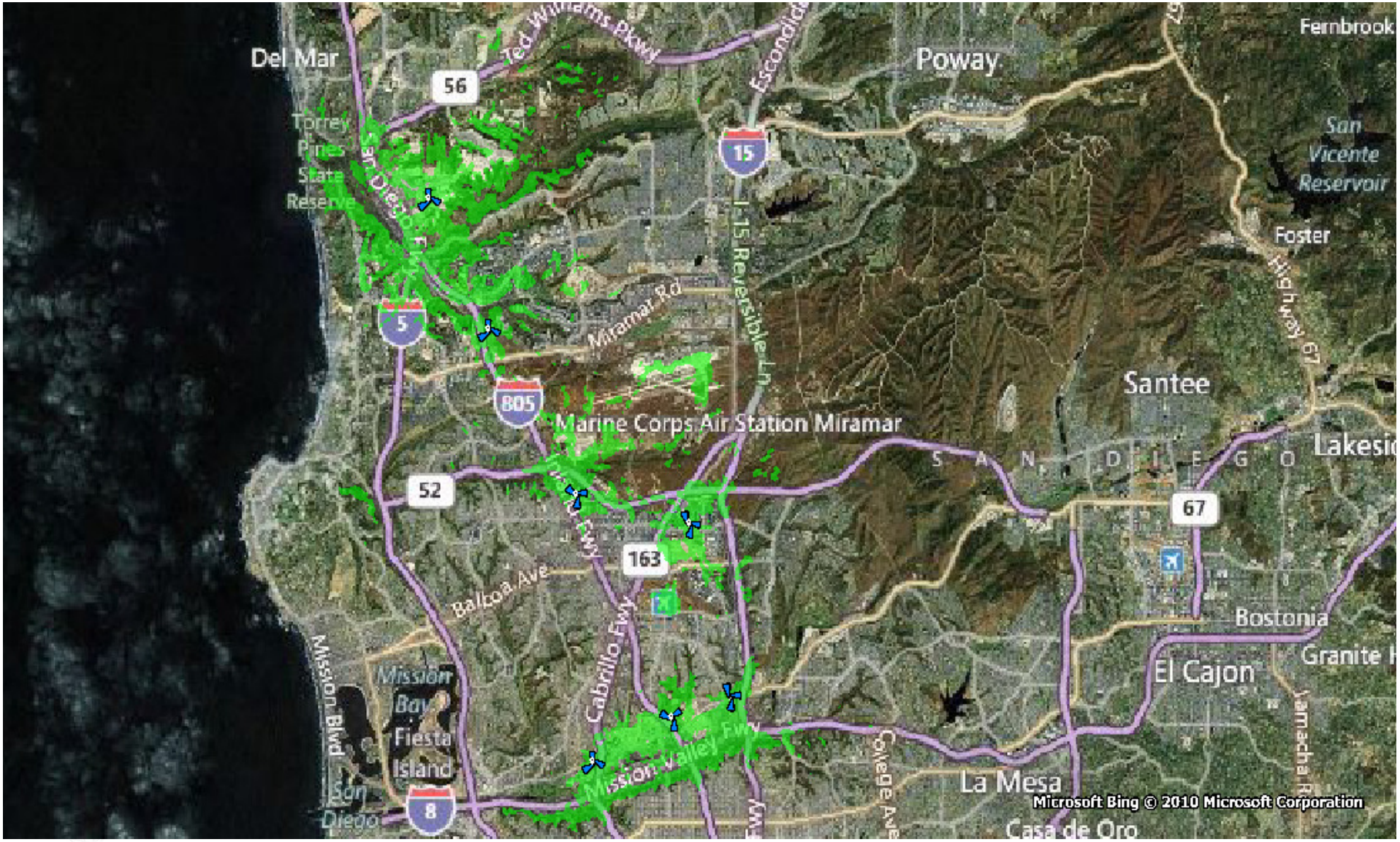
Equipment installation examples



Fixed station on distribution pole 2

Pilot Coverage Prediction





Production
Coverage Prediction